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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/014,885	12/11/2001	Franz Forster	964-011861	2379

28289 7590 09/23/2004

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EXAMINER

AVERY, BRIDGET D

ART UNIT	PAPER NUMBER
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3618

DATE MAILED: 09/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/014,885

Applicant(s)

FORSTER, FRANZ

Examiner

Bridget Avery

Art Unit

3618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 and 14-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14-18 is/are allowed.
- 6) ☒ Claim(s) 1-12 and 19-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

1. The amendment filed by applicant on June 30, 2004 is acknowledged and has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 4 and 19-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wakuta et al. (US Patent 5,127,485) in view of Adler (US Patent 5,469,928).

Wakuta et al. teaches a drive device for a machine, the drive device including a traction drive system having a drive axle; and a hydraulic work system having at least one oil cooled electric motor (6) and at least one pump (27) driven by the electric motor (6) (see column 2, lines 42), where the drive axle has an axle housing that is substantially closed on all sides and is provided for connection with a vehicle frame, and at least one of the electric motor (6) and the pump (27) of the hydraulic work system are located inside the axle housing (2). See Figure 1. The electric motor (6) of the hydraulic work system is provided as the traction motor of the traction drive system. Wakuta et al. also teaches a regulation system/control for the motor (6). See column 7,

lines 38-64. An installed delivery capacity of the pump (27) is designed to deliver a volume of fluid required by the hydraulic work system.

Wakuta et al. lacks the teaching of an axle having wheel mounted at each end and a hydraulic steering system.

Adler et al. teaches a wheels mounted at each end of an axle and a hydraulic steering system.

Based on the teachings of Adler et al., it would have been obvious to one having ordinary skill in the art, at the time the invention was made to modify the drive device of Wakuta et al. to include an axle extending between two drive wheels to regulate wheel speed between the inner and outer wheels. It would have been obvious to one having ordinary skill in the art, at the time the invention was made to include a hydraulic steering system to prevent oversteering.

3. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wakuta et al. ('485) and Adler et al. ('928), as applied to claim 1 above, and further in view of Degonda et al. (US Patent 5,964,473).

The combination of Wakuta et al. and Adler et al. teach the features described above including planetary gear trains (20).

The combination of Wakuta et al. and Adler et al. lack the teaching of an axle having two motors.

Degonda et al. teaches an axle (157) having two motors (155). The drive axle (157) has two traction electric motors (155) located on the ends of the drive axle (157).

Based on the teachings of Degonda et al., it would have been obvious to one having ordinary skill in the art, at the time the invention was made to modify the combination of Wakuta et al. and Adler et al. to include an axle housing two motors to eliminate the manufacturing cost associated with providing two separate axles.

4. Claims 5-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wakuta et al. ('485), Adler et al. ('928) and Degonda et al. ('473) as applied to claim 1 above, and further in view of Braschler (US Patent 5,289,905).

The combination of Wakuta et al., Adler et al. and Degonda et al. teach the features described above.

The combination of Wakuta et al., Adler et al. and Degonda lack the teaching of electric disc rotor motors or hydraulic motors.

Based on the teachings of Gardner, Jr., it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combination of Wakuta et al., Adler et al. and Degonda to include electric disc rotor motors or hydraulic motors to promote smooth fluid gear shifting.

Allowable Subject Matter

5. Claims 14-18 are allowed.

Response to Arguments

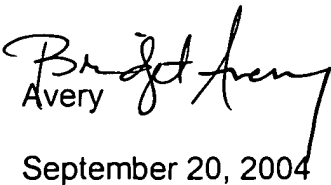
6. Applicant's arguments with respect to claims 1-7, 9-13 and 19-24 have been considered but are moot in view of the new ground(s) of rejection.

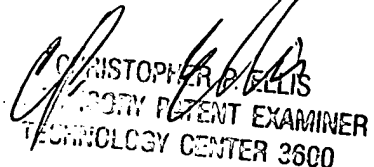
Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication should be directed to Bridget Avery at telephone number 703-308-2086.


Avery
September 20, 2004


CHRISTOPHER D. ELLIS
PATENT EXAMINER
TECHNOLOGY CENTER 3600